

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously Presented) A method for repairing a damaged myocardium in a mammal, comprising:

- a) providing a three-dimensional porous polysaccharide matrix;
- b) introducing mammalian cells into said matrix;
- c) growing said cells in said matrix in vitro, until a tissue-engineered biograft is formed, comprising a contracting tissue; and
- d) transplanting the tissue-engineered biograft onto the myocardial tissue or myocardial scar tissue of said mammal, optionally previously removing scar or dead tissue from the site of implantation;

wherein the mammalian cells are fetal, autologous, or allogeneic cardiomyocytes, and

wherein said polysaccharide matrix further comprises controlled-release polymeric microspheres, said microspheres being capable of releasing soluble angiogenic growth factors in a controlled manner.

2. (Original) A method according to claim 1, wherein said polysaccharide matrix comprises an alginate polysaccharide.

3. (Previously Presented) A method according to claim 1, wherein the polysaccharide matrix generates a scaffold.

4. (Canceled)

5. (Previously Presented) A method according to claim 3, wherein said mammalian cells are combined with at least one of endothelial cells, fibroblasts, or smooth muscle cells that are fetal, autologous, or allogeneic.

6. (Original) A method according to claim 5, wherein said endothelial cells form capillary-like tubes within the scaffold.

7-8. (Canceled)

9. (Original) A method according to claim 1, wherein said myocardial damage is due to myocardial infarction.

10. (Original) A method according to claim 1, wherein said myocardial damage is due to congenital heart defect.

11-17. (Canceled)

18. (Previously Presented) A method according to claim 2, wherein the polysaccharide matrix generates a scaffold.

19-21. (Canceled)

22. (Previously Presented) A method according to claim 1, wherein said cardiomyocytes are fetal cardiomyocytes, neonatal cardiomyocytes, or adult cardiac cells.

23-24. (Canceled)